

Water Well Inspector Certification

1. The DEQ Well Construction Unit (WCU) is ***not currently offering*** a “certification” course for individuals wishing to conduct inspections of water supply systems that are required as part of financial transactions or sales of property.
2. Some county governments have passed locally-applying requirements for certification of inspectors.
 - A. Where a county or municipality has adopted an ordinance or passed a local requirement for inspector certification, they may enforce such requirements in the geographical areas under their jurisdiction.
 - B. For purposes of issuing water system approvals, requirements and rule interpretations associated with water supply construction and isolation must be at least as stringent as provided in the Michigan Groundwater Quality Control Rules, Part 127 P.A. 1978 and Rules as Amended. This applies to all parts of the state.
 - C. Requirements and rule interpretations associated with water supply construction and isolation that are *more stringent* than those defined in Part 127 P.A. 1978 and Rules as Amended, may be enforced within a defined area of the state, if the specific requirements are identified and adopted within the environmental health code of the county with jurisdiction.
3. The Michigan Ground Water Association (MGWA) annually conducts the Ground Water and Wells Fundamentals Course where the basics of well design, installation, and proper well operation are defined. Though it is not currently a certification mechanism, we recommend that all water well inspectors attend this course. Course dates, locations, and other details may be obtained by visiting the MGWA website at www.michigangroundwater.com
4. Educational resources associated with previous DEQ certification courses may be available from the WCU at the cost of reproduction.
5. The MGWA, in cooperation with various county health departments, periodically offers inspector training/certification opportunities for water well inspectors. These sessions are administered through individual county health departments. Issued “certification” applies only within the sponsoring counties.
6. The WCU recommends that before conducting water well system inspections within any given county, persons interested in performing these services contact the county health department with jurisdiction and inquire if there are inspector certification requirements. Counties with “point of sale” programs may require inspector certification through local ordinance.

Water Well Drilling Contractor or Pump Installation Contractor Registration Application Information

The contractor registration application is available for download from the DEQ Well Construction Unit website.

Go to www.michigan.gov/deq. Click on “**Water,**” then “**Drinking Water,**” then “**Water Well Construction**”.

The contractor registration application is found under the “**Water Well Drilling and Pump Installation Contractor Registration**” link under “**Information**”.

For further information, please contact Joe Crigier at 517-241-1389 or by email at crigierj@michigan.gov.

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
WATER BUREAU
DRINKING WATER & ENVIRONMENTAL HEALTH SECTION
WELL CONSTRUCTION UNIT

Before You Start a Well Drilling Business

So you want to start a water well drilling business. Operating a well drilling or service business can be challenging, rewarding and profitable. But it is not as simple as buying a well drilling rig and advertising in the telephone directory. Before you get started, you need to be familiar with the applicable regulations.

Building a successful well drilling business takes years of hard work, commitment and perseverance. A modern, fully-equipped well drilling business requires a substantial capital investment. Specialized technical skills, sound entrepreneurial practices, and courteous, prompt customer service, are hallmarks of reputable well drilling businesses. Conscientious contractors strive to maintain consumer confidence in water from private wells and protect ground water for future generations.

Plan to participate in continuing education activities to help you keep pace with current technology. Getting involved with trade organizations, networking opportunities with other ground water professionals, and reading technical publications are good ways of keeping up with information about your industry.

Since 1965 the State of Michigan has regulated the water well industry to ensure that public health is protected. This brochure reviews portions of the regulations contained in Part 127 of 1978 PA 368, commonly known as the Michigan Water Well and Pump Installation Code. These regulations deal with well driller/pump installer registration, supervision of drilling/pump installation activities, and well/pump code provisions.

Other laws applicable to businesses are *not* covered in this brochure. Useful information on business planning, management, and operation is available from other state and local agencies, universities, community colleges, public libraries, and legal and financial consultants. Be sure to familiarize yourself with all legal requirements before getting too deep into the well drilling business.

Michigan's water well drilling industry plays an important role in our society. Water well contractors supply ground water to households, cities and villages, small businesses, schools, large industries, agricultural operations, recreational facilities, and many other users. Nearly half of our citizens rely on ground water for drinking. Michigan has a stable well drilling industry (about 1,000 registered contractors) and each year over 25,000 new wells are completed. With more water wells than any other state, the demand for the water well industry's services are expected to remain strong.

Contractor Registration

Michigan law requires that you obtain a Certificate of Registration (or license) from the Department of Environmental Quality (DEQ) before engaging in the business of water well drilling or repair or pump installation or servicing. The registration must be renewed

annually. Registration helps ensure that persons installing water wells are technically competent and knowledgeable of state well code provisions. Starting up a new well drilling business or acquiring an existing well drilling business without registration can lead to prosecution. It can also hinder your future effort to obtain a Certificate of Registration.

A well drilling firm, partnership, or corporation must have at least one partner, officer, or responsible full-time employee to represent the business (pursuant to MCL 333.12705 of the state well code). The partner, officer, or full-time employee must take the examination on behalf of the firm. ***The registered contractor is legally responsible for complying with the state well code. Any code violations occurring on water systems installed by the firm are the responsibility of the registered contractor.***

When you purchase an existing well drilling business, you do not acquire the Certificate of Registration of the present contractor. Registrations are not transferable from one individual or firm to another. Often, the contractor who is selling the business becomes a partner with, or employee of, the purchaser, and supervises well construction practices until the purchaser obtains the minimum field experience needed to qualify for registration. Arrangements where an individual operates a business “under the license” of another individual can violate the intent of state regulations. A situation where an unsupervised novice operates a well drilling business using the registration of an individual who resides across the state tends to lead to well code violations. Under informal, loose arrangements legal problems can arise for both the registered contractor and the individual who is working under the registered contractor. ***All business transactions (estimates, billing, etc.) must be conducted under the firm name of the registered contractor.***

It is not uncommon for registered well drilling contractors to notify state or county officials when they encounter unregistered, illegal competitors. When a new well drilling business begins, local well drillers may scrutinize the operation to see if the drilling rig operator is registered. They also check to see that proper well construction practices are used. Unfair competition is unwelcome competition. Complying with state and local regulations and using ethical business practices helps foster good working relationships with others in the water well profession.

If you are purchasing an existing well drilling firm or starting a new one, it is advised that you first consult with an attorney. Your attorney should carefully review the provisions of Sections 333.12701 to 12715 of the state well code and the associated administrative rules to ensure your compliance.

Business Types

Below is a description of the common business types and methods of meeting the legal requirements of the state well code administered by the DEQ. An attorney, accountant, or business counselor can advise you on the appropriate type of business structure for your situation.

Sole-Proprietorship – if the business is solely owed, the owner shall be registered or a responsible full-time employee must be hired as the registered representative. Forty hours per week is generally considered to be full-time. If the business is operated on a part-time basis, the registrant’s employment period should be at least equal to

the time period during which well construction is occurring and the business is being conducted.

Partnership – if the business is a partnership between two or more individuals, one of the partners must be the registered representative. The full-time employment provisions do not apply to a partnership. A copy of the partnership agreement showing the registered contractor as a legal partner must be provided to DEQ.

Corporation – if the business is legally registered as a corporation, the registered contractor must be an officer of the corporation. Corporations are required to be registered with the Corporation, Securities, and Land Development Bureau, Michigan Department of Consumer and Industry Services (phone number 900-555-0031). Upon initial registration, you will need to furnish DEQ with a copy of the Articles of Incorporation to verify that the registered individual is an officer.

Certificate of Assumed Name

A person who conducts a business under a name other than his or her real name must file a Certificate of Assumed Name (commonly referred to a “DBA” or “doing business as”) with the county clerk. They must be filed in each county in which the business is conducted. Regardless of your business type (i.e., partnership, sole proprietorship, or corporation), you should check with the county clerk’s office before conducting business. R 325.1703 of the state well code requires persons who operate well drilling businesses to file copies of their Certificates of Assumed Name with the DEQ upon initial registration.

Public Representations

A person shall not advertise or use any business forms that imply they are registered well drilling contractors (or pump installers) when they are not. R 325.1711 of the state well code requires that registered contractors advertise only under the business name that is registered with the DEQ.

Contractor Responsibilities

Well Construction Code

The state well code contains minimum standards that must be followed when water wells are constructed, repaired or abandoned and when pumps and pumping equipment is installed. The code applies to all water wells regardless of whether the installation is performed by a registered contractor or the property owner. Copies of the code can be obtained from the DEQ or local health departments.

Supervision of Well/Pump Installation

The registered well drilling contractor is responsible for supervising the construction of water wells and the installation of pumps and pumping equipment. The registered contractor must be involved in the day-to-day operation of the well drilling business and must supervise unregistered employees or partners. Direct field supervision is necessary for new employees

or partners. ***Since the registrant is responsible for all well code violations committed by unregistered partners, officers, or employees of the firm, the registrant should have supervisory control over workers within the firm.*** DEQ advises that all eligible individuals within a well drilling firm obtain a Certificate of Registration.

Well Records

The registrant is also responsible for submittal of the water well records and abandoned well plugging records that are required under MCL 333.12707 and R 325.1675. Well records cannot be signed by a person who is not a registered well drilling contractor.

The DEQ Water Bureau offers contractors a free computer software program called **Wellogic** for completion and submittal of water well records and abandoned well plugging records. By using **Wellogic** hundreds of thousands of well records are retrievable over the Internet. For further details, email the Wellogic staff at deg-dwr-wellogic@michigan.gov. Private vendors offer software for inventory control, billing, and many other aspects of business operation.

Consumer Protection

Another important state law that well drilling contractors must comply with is the Michigan Consumer Protection Act. This law prohibits certain types of unfair or deceptive activities and practices in the conduct of business and trade. For further information, contact the Michigan Department of Attorney General, Consumer Protection and Charitable Trusts Division, (phone 517-335-0855 or website: <http://www.michigan.gov/ag>).

Well Permits

All Michigan counties have ordinances requiring that a well permit be obtained from the local health department (or the local health department be notified) before the well is drilled. Well drilling contractors must be certain that a permit has been obtained. If the property owner obtained the permit the well driller should ask to see the permit before beginning the well. Permits contain important information about where the well must be placed on the property to avoid contamination sources. Minimum well depths due to recorded plat restrictions, minimum capacity, and other conditions are commonly noted on permits. Failure to comply with permit conditions can result in the need to redrill the well or in the revocation of the well drilling contractor's Certificate of Registration. Be sure you comply with all local ordinances and permit conditions. Since ordinances differ from county-to-county it is wise to check with the local health department for specific requirements.

Information Sources

Additional information can be obtained by contacting the following:

Business Operation

Michigan Small Business Development Centers.

1-800-232-2727 or website at <http://www.michiganSBDC.org/sbdcmap.html>.

Michigan Economic Development Corporation:

517-373-9808 or website at <http://medc.michigan.org/>

Ground Water

National Ground Water Association:

1-800-551-7379 or website at www.h2o-ngwa.org

Michigan Ground Water Association:

734-428-0020 or website at www.michigangroundwater.org

Regulatory

Michigan Department of Environmental Quality, Well Construction Unit:

517-241-1374 or website at www.michigan.gov/deq

SAMPLE WATER WELL CONTRACTOR'S REGISTRATION EXAM

1. The main purpose of the well driller/pump installer registration program is to
 - A. protect public health and ground water resources
 - B. impose restrictions on the water well drilling industry
 - C. control business practices
 - D. generate revenue for state government
 - E. all of the above

2. When must water well records and pump installation records be completed and submitted?
 - A. within 60 days of completion of the well
 - B. within 90 days of completion of the well
 - C. within one year of completion of the well
 - D. when full payment for the well is received
 - E. C and D

3. Under Act 53, P.A. 1974, a water well drilling contractor or pump installation installer shall not excavate without having first notified the public utilities at least 48 hours before excavating and drilling. Who should be contacted for purposes of determining utility locations?
 - A. Township supervisor
 - B. Miss Dig Utility Communication System
 - C. local fire department
 - D. gas and electric companies
 - E. all of the above

4. The bacteriological quality of drinking water is based on tests for
 - A. typhus bacillus
 - B. viruses
 - C. algae
 - D. coliform bacteria
 - E. nitrates

5. Who is responsible for the disinfection of a newly construction well?
 - A. the owner of the well
 - B. the well drilling contractor
 - C. the pump installation contractor
 - D. the general contractor who constructed the house
 - E. B and C

6. The U.S. EPA primary maximum contaminant level for nitrate in drinking water is
- A. 1 ppm or mg/l (as N)
 - B. 10 ppm or mg/l (as N)
 - C. 20 ppm or mg/l (as N)
 - D. 100 ppm or mg/l (as NO_3)
 - E. B and D
7. The vertical distance from the ground surface to water level during pumping is the
- A. drawdown
 - B. pumping water level
 - C. specific capacity
 - D. radius of influence
 - E. coefficient of storage
8. When a pump switch is changed from 20-40 psi to 30-50 psi, the amount of available water in the pressure tank will
- A. not change
 - B. increase
 - C. decrease
 - D. be inversely proportional to the static water level
 - E. B and D
9. Which of the following piping materials has the least amount of friction loss?
- A. copper
 - B. galvanized steel
 - C. lead
 - D. plastic
 - E. B and C
10. A vacuum is most likely to develop in a water well if the well is not properly
- A. test pumped
 - B. vented
 - C. sealed
 - D. cased
 - E. disinfected
11. Buried well seals and unprotected suction lines are a potential health hazard because
- A. the exact location of the well is unknown
 - B. contaminants may be drawn into the system through leaking fittings or well seals
 - C. the well is probably less than 25 feet deep
 - D. the well is vented
 - E. A and D

12. A water supply must be disinfected after construction or repair because
- A. disease causing organisms may have been introduced during well construction
 - B. contaminated well components can introduce bacteria into the water system
 - C. distribution piping and valves may be contaminated with bacteria during installation
 - D. all of the above
 - E. A and B
13. The standard isolation area of a single family residential well, unless altered by the local health department having jurisdiction, is
- A. 75 feet from a septic tank or drainfield and 10 feet from a buried sewer
 - B. 100 feet from a building and 12 feet from a buried suction line
 - C. 50 feet from a septic tank, drainfield, dry well or animal yard and 10 feet from a buried sewer
 - D. 50 feet from a lake, river, stream, or other body of water
 - E. 10 feet from a septic tank, sewer, building or fuel tank
14. Which of the following are grounds for revocation or suspension of a well drilling contractor's certification of registration
- A. violation of the well construction code
 - B. having obtained registration through fraud or misrepresentation
 - C. providing false information on a water well record
 - D. aiding and abetting an unregistered person to evade the act or rules
 - E. all of the above
15. The term "artesian" applies
- A. to a well where the static water level is at the top of the water bearing formation
 - B. to a well where the static water level rises to a point above the water bearing formation
 - C. to a well drilled by a well driller of Artesian nationality
 - D. only to wells in which water flows above the casing
 - E. to wells drilled in unconfined aquifers
16. When bedrock is encountered within 25 feet of the ground surface, which of the following materials must be used to grout the annular space?
- A. neat cement grout
 - B. concrete grout
 - C. bentonite grout
 - D. granular bentonite grout
 - E. A and C

17. A drive head is attached to the casing in order to
- A. protect the well casing
 - B. provide extra weight for driving blows
 - C. assure straight driving of casing
 - D. align casing lengths during welding
 - E. all of the above
18. Which of the following are important benefits of grouting a well the entire length of the casing?
- A. prevents vertical movement of contaminants along the casing
 - B. prevents mixing of water from one aquifer to another
 - C. preserves hydraulic characteristics of artesian formations and prevents upward leakage
 - D. protects public health and ground water resources
 - E. all of the above
19. Which of the following materials are not permitted to be used to construct a well?
- A. lead packers, lead plugs, lead wool
 - B. drilling fluids containing guar gum
 - C. polymer that does not comply with ANSI/NSF Standard 60
 - D. mill reject or limited service steel pipe, or used pipe
 - E. all of the above
20. Which of the following are acceptable for plugging a screened well drilled in unconsolidated materials (sand and gravel)?
- A. neat cement, concrete grout, bentonite chips, bentonite pellets, or bentonite grout
 - B. pea-gravel, sand, bentonite chips, or bentonite pellets
 - C. drilling fluid bentonite and soil cuttings
 - D. neat cement, concrete grout, neat cement w/ fly ash admixture, or uniform silica sand
 - E. all of the above

ANSWERS

1-A, 2-A, 3-B, 4-D, 5-B, 6-B, 7-B, 8-C, 9-D, 10-B,
11-B, 12-D, 13-C, 14-E, 15-B, 16-A, 17-A, 18-E, 19-E, 20-A